

In the Claims

Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

Please cancel claims 1, 2, 14-17, 20, 22, 24, 27-29, and 36-40 without prejudice or disclaimer.

Please amend pending claims 30-35 as noted below.

1-29 (Cancelled)

30. (Amended) A mixing device for manufacturing mouldings comprising a main cylinder connected to a metal mold for forming moldings, a main screw rotated in said main cylinder for mixing resin material and delivering the same to said metal mold, a main throw-in machine connected to said main cylinder at a start end part thereof for throwing inner resin material, which forms an inner part of said molding, into said main cylinder, a sub-throw-in machine connected to said main cylinder at a part between said metal mold and said main throw in machine for throwing outer resin material, which forms an outer part of said molding, into said main cylinder, an outer resin material holding part for holding said outer resin material, a sub-throw-in hole for delivering said outer resin material to said main cylinder, and a receiving hole positioned, in said main cylinder, between said metal mold and said main-throw-in-machine;

characterized in that a rotating direction side of said main screw in a cylinder inner wall of said receiving hole of said main cylinder is formed in such a manner as to expand said receiving hole; and

~~The mixing device for manufacturing mouldings as claimed in claim 20,~~ wherein said main screw has a small diameter part, a diameter of which is made smaller than that of other parts of said main screw, adjacent to the expansion of said receiving hole.

31. (Amended) A mixing device for manufacturing mouldings comprising a main cylinder connected to a metal mold for forming moldings, a main screw rotated in

said main cylinder for mixing resin material and delivering the same to said metal mold, a main throw-in machine connected to said main cylinder at a start end part thereof for throwing inner resin material, which forms an inner part of said molding, into said main cylinder, a sub-throw-in machine connected to said main cylinder at a part between said metal mold and said main throw in machine for throwing outer resin material, which forms an outer part of said molding, into said main cylinder, an outer resin material holding part for holding said outer resin material, a sub-throw-in hole for delivering said outer resin material to said main cylinder, and a receiving hole positioned, in said main cylinder, between said metal mold and said main-throw-in-machine;

characterized in that a rotating direction side of said main screw in a cylinder inner wall of said receiving hole of said main cylinder is formed in such a manner as to expand said receiving hole;

wherein said receiving hole is a vent hole previously provided in said mixing device for extrusion molding; and

~~The mixing device for manufacturing mouldings as claimed in claim 22,~~ wherein said main screw has a small diameter part, a diameter of which is made smaller than that of other parts of said main screw, adjacent to the expansion of said receiving hole.

32. (Amended) A mixing device for manufacturing mouldings comprising a main cylinder connected to a metal mold for forming moldings, a main screw rotated in said main cylinder for mixing resin material and delivering the same to said metal mold, a main throw-in machine connected to said main cylinder at a start end part thereof for throwing inner resin material, which forms an inner part of said molding, into said main cylinder, a sub-throw-in machine connected to said main cylinder at a part between said metal mold and said main throw in machine for throwing outer resin material, which forms an outer part of said molding, into said main cylinder, an outer resin material holding part for holding said outer resin material, a sub-throw-in hole for delivering said outer resin material to said main cylinder, and a receiving hole positioned, in said main cylinder, between said metal mold and said main-throw-in-machine;

characterized in that a rotating direction side of said main screw in a cylinder inner wall of said receiving hole of said main cylinder is formed in such a manner as to expand said receiving hole;

wherein said sub-throw-in machine includes a sub-screw rotated in a sub-cylinder for mixing outer resin material held in said sub-cylinder and delivering the same; and

~~The mixing device for manufacturing mouldings as claimed in claim 24,~~ wherein said main screw has a small diameter part, a diameter of which is made smaller than that of other parts of said main screw, adjacent to the expansion of said receiving hole.

33. (Amended) A mixing device for manufacturing mouldings comprising a main cylinder connected to a metal mold for forming moldings, a main screw rotated in said main cylinder for mixing resin material and delivering the same to said metal mold, a main throw-in machine connected to said main cylinder at a start end part thereof for throwing inner resin material, which forms an inner part of said molding, into said main cylinder, a sub-throw-in machine connected to said main cylinder at a part between said metal mold and said main throw in machine for throwing outer resin material, which forms an outer part of said molding, into said main cylinder, an outer resin material holding part for holding said outer resin material, a sub-throw-in hole for delivering said outer resin material to said main cylinder, and a receiving hole positioned, in said main cylinder, between said metal mold and said main-throw-in-machine;

characterized in that a rotating direction side of said main screw in a cylinder inner wall of said receiving hole of said main cylinder is formed in such a manner as to expand said receiving hole;

wherein there are plural receiving holes of said main cylinder in a direction of extrusion; and

~~The mixing device for manufacturing mouldings as claimed in claim 27,~~ wherein said main screw has a small diameter part, a diameter of which is made smaller than that of other parts of said main screw, adjacent to the expansion of said receiving hole.

34. (Amended) A mixing device for manufacturing mouldings comprising a main cylinder connected to a metal mold for forming moldings, a main screw rotated in said main cylinder for mixing resin material and delivering the same to said metal mold, a main throw-in machine connected to said main cylinder at a start end part thereof for throwing inner resin material, which forms an inner part of said molding, into said main cylinder, a sub-throw-in machine connected to said main cylinder at a part between said metal mold and said main throw in machine for throwing outer resin material, which forms an outer part of said molding, into said main cylinder, an outer resin material holding part for holding said outer resin material, a sub-throw-in hole for delivering said outer resin material to said main cylinder, and a receiving hole positioned, in said main cylinder, between said metal mold and said main-throw-in-machine;

characterized in that a rotating direction side of said main screw in a cylinder inner wall of said receiving hole of said main cylinder is formed in such a manner as to expand said receiving hole;

wherein said receiving hole is a vent hole previously provided in said mixing device for extrusion molding;

wherein there are plural receiving holes of said main cylinder in a direction of extrusion; and

~~The mixing device for manufacturing mouldings as claimed in claim 28,~~ wherein said main screw has a small diameter part, a diameter of which is made smaller than that of other parts of said main screw, adjacent to the expansion of said receiving hole.

35. (Amended) A mixing device for manufacturing mouldings comprising a main cylinder connected to a metal mold for forming moldings, a main screw rotated in said main cylinder for mixing resin material and delivering the same to said metal mold, a main throw-in machine connected to said main cylinder at a start end part thereof for throwing inner resin material, which forms an inner part of said molding, into said main cylinder, a sub-throw-in machine connected to said main cylinder at a part between said metal mold and said main throw in machine for throwing outer resin material, which forms an outer part of said molding, into said main cylinder, an outer resin material

holding part for holding said outer resin material, a sub-throw-in hole for delivering said outer resin material to said main cylinder, and a receiving hole positioned, in said main cylinder, between said metal mold and said main-throw-in-machine;

characterized in that a rotating direction side of said main screw in a cylinder inner wall of said receiving hole of said main cylinder is formed in such a manner as to expand said receiving hole;

wherein said sub-throw-in machine includes a sub-screw rotated in a sub-cylinder for mixing outer resin material held in said sub-cylinder and delivering the same;

wherein there are plural receiving holes of said main cylinder in a direction of extrusion; and

~~The mixing device for manufacturing mouldings as claimed in claim 29,~~ wherein said main screw has a small diameter part, a diameter of which is made smaller than that of other parts of said main screw, adjacent to the expansion of said receiving hole.

36-40 (Canceled)